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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/796,440 | 03/09/2004 | Bruce Richard Crain | NORT 64197 | 1812 |

7590 09/28/2005

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| EXAMINER |
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CAO, HUEDUNG X

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| ART UNIT | PAPER NUMBER |
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2821

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,440

Applicant(s)

CRAIN ET AL.

Examiner

Huedung X. Cao

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>07/28/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recited "a rigid pan shaped to fit within an aircraft window opening" which does not appear to be in the originally filed specification, instead as described in paragraph [0020] of the specification, the pan is being used to provide "structural rigidity", and the claim is required "rigid pan", they are not the same thing, it is not necessary that the pan is rigid, it could be fully or partially rigid. Thus, the recitation must be treated as "new matter". However, if the applicant does not believe that this subject matter is "new matter", an appropriate explanation is required including pointing out where support for this subject matter can be found in the origin specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by ALT et al. (US 6,198,445 B1).

As per claim 1, Alt teaches the claimed "a conformal load-bearing antenna assembly" comprising:

a pan shaped to fit within an aircraft window opening (Alt, column 2, lines 14-26);
an antenna element disposed within the pan (Alt, figure 1, radiating element 14; column 3, line 62-column 4, line 24);

a connection for coupling a signal to the antenna element (Alt, column 4, lines 2-24);

Claim 2 adds into claim 1, wherein the antenna element comprises a stripline supported by dielectric sheet, and at least one radiating element couple to stripline (Alt, column 4, lines 34-58);

Claim 3 adds into claim 2, wherein the antenna element further comprises a front ground plane and a back ground plane, with the front ground forming with one or more slots adjacent to the radiating element (Alt, column 6, lines 38-57);

Claim 4 adds into claim 1, further comprising a conductive gasket positioned adjacent to the perimeter of the antenna element, electrically bonding the antenna to an aircraft fuselage and providing a pressure seal (Alt, column 4, line 59-column 5, line 37);

Claim 5 adds into claim 1, wherein the pan forms a pressure seal with the aircraft window opening (Alt, column 6, lines 5-34).

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Claim 6 adds into claim 1, comprising a bonding strap for carrying lightning currents from the antenna structure to a fuselage of the aircraft (Alt, column 6, lines 5-53).

Claim 7 adds into claim 3, wherein the front ground plane and the back ground plane are electrically bonded to each other (Alt, figure 1, column 5, line 59-column 5, lines 37).

Claim 8 adds into claim 3, wherein the back ground plane is electrically bonded to the pan (Alt, figure 1, column 5, line 57-column 6, lines 4).

Claim 9 adds into claim 1, wherein the antenna element comprised a tapered stripline (Alt, figure 1, strip line 30).

Response to Arguments

4. Applicant's arguments filed 07/28/2005 have been fully considered but they are not persuasive.

Applicant argues that since claims 2-6 depend from amended claim 1, the rejection is traversed for the reason set forth with respect to the traversal of the rejection of the amended claim 1. However, amended claim 1 contains a new subject matter which was not described in the specification; therefore, the 102 (b) USC rejection to claims 1-6 stand.

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Inquiries

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huedung Cao whose telephone number is (571) 272-1939.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Huedung Cao
Patent Examiner


WILSON LEE
PRIMARY EXAMINER